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ABSTRACT

The aim of this paper is to identify the mechanisms that relate participation in programs established by Chapter 1 of the Education Consolidation and Improvement Act of 1981 to student achievement. It focuses on what happens to students in Chapter 1 programs and how their experiences affect their growth in academic achievement. The paper begins with a brief background description of services provided by Chapter 1, the extent of the program, and the disappointing results of federally funded compensatory education programs as revealed especially in the Sustaining Effects Study (Carter, 1984) which evaluated Title I of the Elementary and Secondary Education Act, the predecessors of Chapter 1. Next, the paper discusses grouping, instructional, and interactional processes that occur in Chapter 1 classes and their relationship to achievement. Finally it examines the process through which students are designated as eligible for Chapter 1 services. Among the findings are the following: (1) The greater success of Chapter 1 in first grade may be because Chapter 1 students receive more instructional time and higher quality instruction in first grade than later. (2) Since many students receive Chapter 1 services for only one year, their participation in compensatory education may not be sufficient to produce long-term benefits. (3) Since only the lowest achievers are retained in Chapter 1 programs across grades, long-range effects are not likely to appear because achievement is generally small with this population of students, regardless of the kind of instruction they receive. (4) Very low-achieving students may be more vulnerable to the negative effects of low teacher expectancies and labeling. A list of references is included. (PS)

CHAPTER 1 AND STUDENT ACHIEVEMENT: A CONCEPTUAL MODEL

by

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CHAPTER 1 AND STUDENT ACHIEVEMENT: A CONCEPTUAL MODEL

For the past twenty years, the primary way the Federal government has addressed the problem of educating low-achieving students in elementary, middle and secondary schools in this country is by allocating funds to compensatory education programs. Beginning in 1965, remedial educational services were provided for these students under Title I of the Elementary and Secondary Education Act which granted Federal funding to local education agencies. The implementation of these services was improved in 1981 when the Education Consolidation and Improvement Act was enacted, replacing Title I by Chapter 1.

The compensatory educational services provided by Chapter 1 primarily include remedial instruction emphasizing basic skills in reading and mathematics. A typical practice is to remove Chapter 1 students from the classroom for special instruction in these subjects (pullout) in lieu of or in addition to the reading and mathematics instruction received by their non-Chapter 1 classmates. Instruction generally lasts from 20 to 30 minutes, on three to five days a week. In some cases, special instruction is given to Chapter 1 students in the classroom while non-Chapter 1 students are doing other work. In a small percentage of schools, Chapter 1 services are provided through add-on programs, with students receiving remedial instruction before or after school and/or during the summer. Chapter 1 services are provided by teachers and aides who receive special training in strategies for instructing low-achieving students.

Criteria for designating a school as a recipient of Chapter 1 funds vary. Frequently employed bases for selection include the number of students receiving free or reduced-price lunches and/or the number of Aid to Dependent Children enrolled. These criteria demonstrate that the Chapter 1 program is aimed at poor schools rather than low-achieving students. The underlying assumption is that academic achievement is highly related to socioeconomic status or income. Students most likely to receive Chapter 1 services, relative to their number in the total student population, are Hispanics and Blacks in large cities and rural areas and in the South.

Within the set of Chapter 1 schools, criteria for assigning students to compensatory education programs differ across school districts and even across schools within a district and classrooms within a school. Ordinarily teachers and principals identify low-achieving students through standardized achievement tests, class grades and student observation. Yet in some schools, all students are assigned to Chapter 1 programs

whether they are low-achieving or not. In other schools, only the lowest achieving students are assigned to Chapter 1 programs.

A consequence of the way Chapter 1 schools are selected and of the way these resources are used within schools is that many low-achieving students are not recipients of Chapter 1 resources while many students who are not low achievers benefit from this program. In 1976-77, only 40 percent of students who were low achievers received compensatory education while over 2,000,000 low-achieving students did not receive any compensatory education (Carter, 1982).

The extensiveness of the Chapter 1 program in terms of cost, teacher training and number of student recipients is staggering. In 1984-85, Chapter 1 programs cost the Federal government over a billion dollars. Over 160,000 teachers, administrators, curriculum specialists and clerical and support staff (in full-time equivalents) were involved. Almos five million students in grades pre-K through 12 (70 percent of whom were in grades 1 through 6) were served by Chapter 1 during that period.

Any program of the magnitude of Chapter 1 is an obvious target for repeated evaluation to determine whether its effectiveness justifies its cost. Chapter 1 and its predecessor, Title I, are no exceptions. One of the most extensive efforts to evaluate Title I was the Sustaining Effects Study (Carter, 1984). This study examined the nature of federally funded compensatory education programs, identified students who received them and tried to determine how effective they were. The national sample included about 120,000 students in over 300 elementary schools on whom data were collected for three successive school years beginning in 1976-77.

Many of the conclusions of the Sustaining Effects Study with respect to the effectiveness of Title I programs are consistent with the findings of other studies evaluating Title I and Chapter 1 (e.g., Wargo et al., 1972; Trismen, Wallter, & Wilder, 1976). Among the most noteworthy results are the following:

1. Compared to low-achieving students who did not receive compensatory education, Title I students made significant gains in mathematics achievement in all the grades, 1 through 6. However, they made significant gains in reading only in grades 1, 2 and 3. Title I programs showed no impact on the reading gains of 4th through 6th-grade students in the sample compared to low-achieving non-Title I students.

2. The largest gains in reading and mathematics occurred in the first grade.

3. Title I services were found to be effective for students who were moderately low achievers but did not improve the relative achievement of students who were seriously disadvantaged.

4. By the time students reached junior high school, regardless of the number of years they had participated in Title I programs, no sustained or delayed effects of the programs were observed.

These results are disappointing, given the investment of resources and personnel that the government has made in Title I and continues to make in Chapter 1. The desired outcome of a program of this magnitude would be steady, significant achievement gains that are sustained throughout a student's school career. While one could challenge the results of these evaluation studies on methodological or conceptual grounds, the consistency of the findings across studies, many of which relied on large samples, justifies a certain amount of credence in their conclusions.

As well as being disappointing, the outcomes of the evaluations of compensatory education programs to date are puzzling and raise a number of questions about Chapter 1. In the first place, why are compensatory education programs more successful in mathematics than in reading, especially if the same amount of compensatory instruction is provided in both subject areas? Why is compensatory education most successful in the first grade and increasingly less effective as students advance through school? Why are compensatory education programs more successful with students who are moderately low achievers than with students who are seriously disadvantaged educationally? Why do the positive effects of participation in compensatory education programs disappear when students move beyond the elementary level?

These questions call for a re-examination of compensatory education in order to determine why it has not been more successful and why these puzzling outcomes occur. The aim of this paper is to identify the mechanisms that relate participation in Chapter 1 programs to student achievement. To accomplish this task, I will ignore questions relating to the appropriateness and equity of current practices designating certain schools as Chapter 1 schools and of identifying particular students as qualifying for Chapter 1 resources. Instead, I will focus on what happens to students in Chapter 1 programs and how their experiences affect their growth in academic achievement.

Within-Class Ability Grouping and Academic Achievement

Chapter 1 programs are basically a form of within-class ability grouping. The rationale for ability grouping is to gear the content, level and pace of instruction to the aptitude of students. Instruction in groups that are homogeneous with respect to aptitude is expected to maximize the likelihood that students will learn.

The evidence in support of ability grouping is not unequivocal. In a recent review of five studies of within-class ability grouping for mathematics, Slavin (1986) concluded that this practice was more conducive to student learning than whole-class instruction. A number of other studies detected no direct effect of ability grouping on mathematics or reading achievement at the elementary level. For example, Sorensen and Hallinan (1986) found no difference in reading gains for fourth through seventh-grade students who were ability grouped compared to those who received whole-class instruction. Similarly they observed no direct effect of ability grouping on mathematics achievement for the same age group (Hallinan & Sorensen, 1986).

Research on whether ability grouping differentially affects the achievement of students in high- and low-ability groups also has been inconclusive. Based on his best-evidence synthesis, Slavin (1986) concluded that within-class ability grouping for mathematics benefits low, middle and high achievers, especially when the groups are small. In contrast, a number of studies report that within-class ability grouping disadvantages students assigned to the low group. Reviews of this research are found in Good and Marshall, 1984; and Bossert, Barnett and Filby, 1984. These studies show that, controlling for prior achievement, students in the low-ability group learn less than those in the high group. A differential impact of ability grouping on students by group level could explain the failure of many studies to find a direct effect of ability grouping on student achievement. A positive effect of ability grouping on the high group may be offset by a negative effect on the low group resulting in no change in the mean gain in achievement in ability grouped classes compared to ungrouped classes.

Despite the absence of strong empirical support for within-class ability grouping, educators continue to employ this pedagogical practice, convinced, apparently, that the advantages associated with homogeneous grouping outweigh the disadvantages. The primary advantage, of course, lies in the teacher's ability to tailor instruction to the students' aptitudes. Yet there are several disadvantages. One is the

reduced amount of total instructional time students receive, since the teacher must distribute instructional time across the number of ability groups in the classroom. A second disadvantage is the potential for differences in the quantity and/or quality of instruction across groups. Moreover, if teacher expectations differ across groups, students for whom teachers have lower expectations may be disadvantaged. Finally, student self-image and motivation are likely to be affected by ability grouping, if membership in a certain group is associated with a negative label or stigma.

Since Chapter 1 is seen to be a form of ability grouping, the research findings on ability group effects on academic achievement are relevant to an evaluation of Chapter 1. More importantly, the mechanisms that relate ability grouping to achievement are also likely to govern learning in Chapter 1 programs.

Chapter 1 and Student Achievement

In attempting to specify the mechanisms that relate student participation in Chapter 1 programs to academic achievement, it is important to have a clear understanding of the way teachers implement Chapter 1 programs in schools. The most popular strategy is pullout, that is, the removal of Chapter 1 students from the classroom for instruction in a laboratory or resource center by teachers or aides trained in compensatory education. Students are usually instructed in small groups with considerable individualized attention. In some cases the teacher recommends to the specialist the kind of instruction that should be given. In other cases, the specialist initiates instruction and the teacher attempts to reinforce the skills that are learned when the student returns to the classroom. Often the teacher and specialist jointly evaluate the outcome.

A less common, though not rare, practice is mainstreaming in which Chapter 1 students are instructed within their regular classroom. One approach to mainstreaming is for the regular teacher to instruct Chapter 1 students while Chapter 1 personnel provide supplementary assistance. Another form of mainstreaming occurs when a Chapter 1 staff person visits the classroom and instructs Chapter 1 students while the regular teacher works with the other students in the class. With the exception of add-on programs, such as summer school, nearly all Chapter 1 programs reflect some aspect of pullout or mainstreaming, and consequently these two practices will be the primary focus of attention here.

The effects of ability grouping, and in particular, of compensatory education programs, on student achievement are transmitted through two processes: instructional and interactional. It will be argued here that variations in these two processes account for the differential success of Chapter 1 programs across schools, grades and subject areas. These processes will now be outlined.

Chapter 1 and the Instructional Process

Instruction, or the transmission of knowledge to students, has two dimensions: quantity and quality (Hallinan, in press). The quantity of instruction is the total amount of material that is presented to students to learn. It is a function of the amount of time allocated to instruction and of the pace of instruction. The quality of instruction refers to the match between the way a teacher presents material to students and the students' ability and motivation to comprehend it.

Quantity of instruction. A number of studies on instructional time have shown that the greater the quantity of instruction received by students, the more they learn (see Fisher and Berliner, 1985, for illustrations of this body of research). This is true both in terms of the actual number of hours or minutes of instruction and the rate of instruction within a teaching period. Controlling for other factors, instructional time has been shown to predict academic achievement.

Students are actively engaged in learning for some portion of the total amount of time a teacher devotes to instruction. The percentage of time-on-task is influenced by the quality of instruction, by characteristics of the learning environment and by individual characteristics of the students. Again, the more time spent on task, the more a student learns.

The amount of instructional time allocated to a particular subject varies across schools and classrooms and, at times, across groups within a classroom. Similarly, the proportion of instructional time a student is actively engaged in learning depends on characteristics of the learning environment and of individual students. As a result, students in different schools and classrooms and in different ability groups within a classroom have unequal opportunities for learning particular subjects. Schools that require more hours of instruction over a school year provide greater learning opportunities than those that have shorter semesters or days. Similarly, within a school day, teachers who allocate more time to a particular subject, such as reading, provide greater opportunities to learn reading (and likely fewer opportunities to learn other subjects) than teachers who have shorter reading lessons.

Another way quantity of instruction varies is by the pace of instruction. Different teachers present instructional material at different rates. In addition, teachers may vary the pace of instruction across ability groups, instructing high achievers more quickly than low achievers. If the instructional units are the same length, then the students who receive faster paced instruction will cover more material (and likely demonstrate greater gains in achievement) than those who receive slower paced instruction. In a series of studies on the organization of reading instruction, Barr and Dreeben (1983) showed that one of the disadvantages of assignment to low-ability group was that students were exposed to significantly fewer basal words and phonics concepts than those assigned to higher groups.

The effects of quantity of instruction on student achievement has particular relevance for an evaluation of Chapter 1 programs. It must be remembered that the progress of Chapter 1 students is usually compared to that of regular students with the same aptitude. Many Chapter 1 students receive instruction in reading and/or mathematics along with their classmates and, in addition, receive supplementary instruction in that subject in a pullout or mainstream setting. If Chapter 1 students receive more instruction in these subjects than their classmates, then controlling for aptitude, one would expect them to show greater achievement gains. This is a possible explanation of the success of some Chapter 1 programs.

However, the Chapter 1 services do not always provide more instruction in a particular subject than regular students receive, even when Chapter 1 instruction is given over and above regular instruction in a subject. One must consider what part of the regular curriculum Chapter 1 students are missing when they are receiving compensatory education. In many cases, Chapter 1 reading instruction is scheduled while non-Chapter 1 students are engaged in academic or co-curricular work, such as social studies, music or art. To the extent that these activities involve reading, the amount of time regular students spend reading may approximate the time Chapter 1 students are being instructed in reading. Even though the formal instruction Chapter 1 students receive may be more beneficial for them than the work they are missing, the comparative advantage of receiving Chapter 1 services over regular instruction still may be small. The fact that in some schools Chapter 1 programs do not significantly increase the amount of time students actually spend reading, compared to regular students, may account for their failure to produce significant gains in reading.

A comparison of the amount of instruction Chapter 1 and regular students receive in mathematics may explain why Chapter 1 produces greater achievement gains in mathematics than reading. Unlike the case with reading, regular students may

not be doing mathematics while their Chapter 1 peers are receiving supplementary mathematics instruction. Mathematics is more curriculum bound than reading and does not easily transfer across curricula. Therefore, Chapter 1 students are likely to receive more mathematics instruction than their classmates, which may account for their progress in this area.

In other Chapter 1 schools, compensatory education replaces regular instruction in reading and mathematics. In these cases, the amount of time Chapter 1 and regular students are exposed to reading and mathematics instruction is about the same, and Chapter 1 students do not receive the advantage of extra instructional time in these subjects. But the pace of instruction also must be taken into account. If Chapter 1 students are given more instructional time but the pace of instruction is slower than regular instruction, the amount of coverage may basically be the same. If the amount of instructional time allocated to Chapter 1 and regular students is the same but the pace of instruction is slower for Chapter 1 students, then the quantity of instruction they receive will be less. Differences in the amount of time and pace of instruction in Chapter 1 programs compared to regular instruction should be taken into account in evaluating the success of Chapter 1.

Quality of instruction. The second dimension of the instructional process is quality of instruction. Quality is determined by the content of instruction and by teacher pedagogy (Hallinan, in press). Content refers to the body of material presented to students, while teacher pedagogy is the way or ways the material is presented. The better the fit between these two aspects of instruction and student characteristics, the higher the quality of instruction.

Although teachers are generally bound by district-wide or state regulations in selecting instructional content, some flexibility is usually possible. This is often apparent in ability grouped classes where teachers limit themselves to the curriculum when instructing low-ability groups but go beyond the curriculum when instructing higher-ability groups. This is partly because high-ability students can cover the required material more quickly than lower-ability pupils. Consequently, low-ability groups receive less content than higher groups.

The pedagogical practices employed by teachers are also likely to differ by group level. A number of studies show that students in high-ability groups receive more interesting and challenging materials, interact more with the teacher and are asked to do more creative work than students in low-ability groups (e.g., Martin & Evertson, 1980; Stern & Shavelson, 1981). Teaching methods employed in low-ability groups include more memorization and rote learning, less teacher-student

interaction and the use of less interesting materials. With respect to both content and pedagogical techniques, the quality of instruction in low-ability groups appears to be inferior to that in high-ability groups.

Questions about the quality of instruction arise in examining compensatory education programs. The quality of instruction Chapter 1 students receive varies in content and method just as it does with regular instruction. The quality of instruction in some Chapter 1 programs, like that observed in some low-ability groups, may be inferior to the instruction received by higher-achieving students. Moreover, the content may be limited and the methods of instruction uninteresting and possibly unproductive. Other Chapter 1 programs are likely to be of high quality, partly because staff members have benefited from and implemented the specific training they received in compensatory education. In these programs, the content of the curriculum is likely enhanced and presented in ways that engage student interest and increase motivation to learn. The effectiveness of Chapter 1 programs in producing gains in reading and mathematics achievement is determined by the quality as well as the quantity of instruction Chapter 1 students receive.

Chapter 1 and Student Interaction

The second process that transmits the effects of instructional grouping to student achievement is the interactional process. The interactions of interest here are those that occur between teacher and students and among students within a classroom. Also important, of course, are the interactions between parents or other relevant adults and students but these will not be considered here. Several aspects of teacher-student and peer interaction will be examined. These include teacher expectations, labeling, and peer influences.

Teacher expectations. In predicting student behavior, teachers respond to various cues from students, including both ascribed characteristics, such as race and social class, and achieved characteristics, such as previous school performance. Based on these cues, they tend to form fairly accurate expectations about students' future behavior, and especially their academic performance (Dusek, 1985). The question arises as to whether teachers adapt their behavior toward students based on these expectations and whether students modify their behavior to make it consistent with teacher predictions. This is known as the self-fulfilling prophecy (Rosenthal & Jacobson, 1968).

A number of research studies examining teacher expectancies show that a self-fulfilling prophecy does occur (Dusek, 1985). Many of these studies can be criticized on methodological grounds. Nevertheless, the possibility of an

interaction between teacher expectancies and teacher behavior or between teacher expectancies and student behavior is of considerable concern. The fear, of course, is that teachers will limit student attainment through inappropriate expectations. Although teachers tend to make fairly accurate assessments of student potential (Dusek, 1985), their expectations remain fairly stable over time. This could be detrimental to students who demonstrate a sporadic rather than steady learning pattern.

The mechanism through which teacher expectancies affect achievement is student motivation. Teacher expectancies have a direct impact on student self-concept and self-expectations (Eccles & Wigfield, 1985) which are determinants of motivation. A positive self-concept and a high expectation of success increases a student's motivation to succeed, resulting in a greater expenditure of effort to learn and ultimately, higher achievement. A negative self-concept and low expectation of success diminishes motivation and decreases achievement. Teacher expectations, then affect student motivation and achievement through their impact on self-concept and self-expectations.

One way teacher expectations are communicated to students is through their assignment to ability groups, including Chapter 1 programs. Teachers assign students to Chapter 1 services when they judge them to be slow learners in need of remedial work or compensatory education. This assignment, which is highly visible to classmates and to school personnel, is likely to be interpreted by students as a negative evaluation of their academic capabilities and potential. The visibility of Chapter 1 and its clear designation as a service for low achievers should increase the influence of low teacher expectations on the self-concept and self-expectations of Chapter 1 students. A weak self-concept and low self-expectations would then decrease student motivation. Moreover, since student participation in Chapter 1 becomes part of their school record, it may influence the expectancies of other teachers who interact with the student in the future.

Teacher expectancies for Chapter 1 students are also communicated through teacher-student interactions within the program. This occurs in the same way it does in a non-Chapter 1 setting, namely through the instructional process. Unless teachers offset the negative effect of being assigned to Chapter 1 by communicating higher expectations to students during instruction, the program is expected to have an ongoing negative impact on student motivation.

Teachers have a number of ways to counter the negative expectations that are communicated to students through assignment to a Chapter 1 program. One way, for example, is through

their evaluation system. Student progress can be judged based on self-mastery, on performance relative to peers or by some absolute standard. An evaluation system that rewards self-improvement makes success seem within the reach of low-achieving students and improves their self-expectations. The experience of success strengthens a student's self-image and increases motivation.

Another way of offsetting the negative teacher expectancies that students perceive through their assignment to Chapter 1 is by creating a cooperative learning environment. A student's academic self-concept is formed by comparison with other students in a reference group (Marsh & Parker, 1984). A cooperative learning climate de-emphasizes comparisons with peers and stresses the importance of each student's contribution toward a common goal. Cooperative learning strengthens student self-esteem by increasing student participation in instructional or group activities (Slavin, 1980). The result should be greater motivation and higher achievement. The failure of Chapter 1 and regular teachers to implement strategies such as these may leave students feeling that teachers expect little progress from them resulting in their expending little effort to learn.

Labeling. A second kind of interaction process is labeling. Usually regarded as a theory of social deviance (Recker, 1973), labeling theory refers to the process of making rules about appropriate attitudes and behavior and assigning the status of outsider or deviant to a person who disregards or breaks those rules. Once a person has been labeled, the deviant is expected to conform to the prescriptions of the role. While labeling theory aims to explain certain kinds of delinquent or nonconformist behavior, it describes a social interaction process that occurs more generally.

Teachers and students label various kinds of student behavior in the classroom. Frequently, labels are related to academic performance. Students are given names, such as "brain" or "dunce", to reflect their position in the academic status hierarchy of the classroom. These titles may be accompanied by esteem or derision and by social pressure on the part of peers to live up to the designated role. Failure to do so may result in group sanction. Less severe names are also used, such as "dumb" or "smart", that carry similar expectations. In attempting to meet these expectations, students' attitudes and behaviors may change and their self-concepts may be altered.

The assignment of students to Chapter 1 programs produces an occasion for classmates to label these peers with some appellation indicating that they are slow learners. It also provides validation of their labels. Labeling theory predicts

that, once labeled, Chapter 1 students would be expected to perform poorly. When Chapter 1 students are placed together with regular students for instruction, these expectations should govern their behavior. They may withhold answers that they know or limit participation in group activities lest they be sanctioned by their peers. The expectation of poor performance is likely to govern a student's behavior regardless of the subject area being taught because labels tend to be generalizations of behavior. If a student, for example, is in Chapter 1 for reading, but performs at an average or above average level in mathematics, the latter behavior is likely to be ignored, once the label of Chapter 1 student or low achiever has been applied.

Deviations from the behavior associated with a label are generally noted by a student's classmates. If, for example, Chapter 1 and regular students were together for instruction and a Chapter 1 student provided the correct answer to a difficult question, the student's classmates might attribute the response to luck rather than to proficiency. Repeated correct responses, however, would be regarded as inconsistent with the student's label and would be judged as inappropriate. The other students might sanction the behavior by ridiculing or ignoring the Chapter 1 student. Rather than changing the label, peers would likely exert pressure on the Chapter 1 student to withhold responses or participate less in the lesson.

One could ask whether the tendency to label Chapter 1 students in a derogatory way is more pronounced in a pullout setting than when students are mainstreamed. The answer depends on a number of factors. The more visible Chapter 1 students are, the easier it is to label them. Pullout seems to single out Chapter 1 students more than mainstreaming, suggesting that it may be more likely to encourage labeling. However, with mainstreaming, Chapter 1 students must perform in the presence of their classmates and poor performance may produce labeling. With either practice, the behavior of the teacher is also a factor. A teacher can decrease the impact of negative labels by sanctioning their use, by replacing them with positive labels and by teaching the students to respect and appreciate the talents and skills of each of their classmates.

Peer influences. A third type of interactional process that affects student achievement is peer interaction. A large body of literature demonstrates that peers can have a significant impact on a student's educational achievement, attainment and aspirations. (See Spady, 1973; and Hallinan, 1982; for reviews of this literature.) This impact can be positive and supportive of learning or negative and an obstacle to learning.

The most common explanations of peer influences are normative and comparative reference group theories. A normative reference group is one that sets norms and standards for an individual's behavior. The mechanisms that govern the influence of a normative reference group are compliance and internalization (Peterson, Rollins, & Thomas, 1985). Compliance is conformity that is motivated by the desire to obtain rewards and avoid punishments. Internalization is conformity based on personal commitment and choice. A comparative reference group serves as a basis of comparison for individuals to evaluate their own behavior or that of others.

The assignment of a student to an ability group or to a Chapter 1 program provides a normative reference group for the student. Instructional groups usually define standards of academic behavior, including degree of involvement in the instructional process, attention, motivation, effort and time spent on homework, as well as attitudes toward learning and school. These norms are established by the students and govern their behavior.

A number of studies show that the norms and standards established in low-ability groups are less supportive of learning than those characteristic of higher-ability groups. Students in low-ability groups are more easily distracted, have more disciplinary problems and provide weaker instructional models than higher achievers (Eder, 1981; Gamoran, 1984). Since Chapter 1 students are low achievers, these features of low-ability groups are likely to describe Chapter 1 programs as well.

An ability group, or a Chapter 1 program, may also serve as a comparative reference group for a student. Group members can judge their academic progress relative to that of other members. Students who make good progress academically, relative to their peers, are likely to have better academic self-images and stronger motivation to succeed than those whose progress is below the group average. The "frog-pond" phenomenon (Davis, 1959) operates here with students measuring their progress and ability in comparison to their immediate reference group and defining success or failure relative to the performance of the other group members.

The peer influences that act on Chapter 1 students, then, appear to have both positive and negative effects on their achievement. Low-ability groups, including Chapter 1 programs, provide a normative reference group that may be less conducive to learning than that of higher-ability groups. Yet they also provide a realistic comparative reference group that should foster rather than discourage achievement by strengthening student self-confidence and motivation. Characteristics of reference groups vary, of course, across classrooms and schools

as do their impact. The norms and standards governing academic behavior in the high and low-ability groups may be far more similar in some classrooms than in others. Similarly, the heterogeneity of groups with respect to student aptitude varies with some groups being too heterogeneous to provide a reasonable comparative reference group for a student. The particular characteristics of an ability group modify the extent to which group members influence a student's achievement.

Chapter 1 and the Assignment Process

Given the potentially serious consequences for student achievement of assignment to a Chapter 1 program, it is important to examine the process through which students are designated as eligible for Chapter 1 services. As mentioned earlier, teachers generally make this decision and have considerable discretion over the criteria on which they base their judgment. It is possible, therefore, for subjective evaluations and biases to enter into the decision-making process. In a recent study, Hallinan and Sorensen (1986) showed that teachers took gender into account in assigning students to the high-ability mathematics group in a sample of fourth through sixth-grade classes. Reliance on idiosyncratic factors such as a student's ascribed characteristics is likely to lead to a mismatch between some students and a Chapter 1 program. Even when teachers rely on standardized test scores for the assignment, these measures are only weak indicators of a student's aptitude, subject to measurement error, and are likely to be poor predictors of academic performance in many cases.

The inappropriate assignment of a student to a Chapter 1 program or the inappropriate exclusion of a child from such a program may have serious consequences for the student's achievement. To the extent that the instructional and interactional processes are different in Chapter 1 programs than in the regular classroom, students may be advantaged or disadvantaged, depending on characteristics of the particular Chapter 1 program in which they participate. If students' ability levels are higher than that appropriate for Chapter 1, they may receive less instruction than they are capable of, be exposed to a more limited curriculum or be negatively influenced by peers who are less involved in the learning process than their higher-achieving classmates. As a result, students may actually make slower gains in reading or mathematics which may result in their being "correctly" designated as a Chapter 1 student the following year.

Within-class ability group assignments tend to be stable, at least over a school year (Hallinan & Sorensen, 1983). This

may be less true for Chapter 1 programs (Carter, 1984). Nevertheless, any tendency to reassign students to a Chapter 1 program because they were previously designated as Chapter 1 students can perpetuate the negative effect of a misassignment.

Finally, participation in some Chapter 1 programs may necessitate a student's missing a part of the school curriculum, such as social studies or music, while they are receiving compensatory education. To the extent that instruction in these subjects is sequential, it may be difficult or impossible for Chapter 1 students to pursue these subjects after they are reclassified as regular students. This results in their having more limited options in course selection as they move through their school career than their regular classmates. This is unfortunate for any student, but is even more so when the assignment of a particular student to a Chapter 1 program was inappropriate in the first place.

Conclusions

This paper provides a conceptual tool with which to evaluate Chapter 1 programs. The questions raised at the beginning of the paper now can be addressed in terms of the processes that relate Chapter 1 programs to student achievement. For example, in asking why Chapter 1 is more successful in the earlier grades, and particularly in first grade, than later, one can compare the instructional and interactional processes that occur in first grade with those in higher grades. It may be that the greater success of Chapter 1 in first grade is because Chapter 1 students receive more instructional time and higher quality instruction in first grade than later. Similarly, interactional processes may be more supportive of learning at the beginning of a student's school career.

The conceptual model can also shed light on the failure of Chapter 1 to have significant long-term effects. The quantity of instruction, in terms of the number of years a student participated in Chapter 1, may be a major determinant of whether the program has long-range benefits. Since many students receive Chapter 1 services for only one year, their participation in compensatory education may not be sufficient to produce long-term benefits. Moreover, since only the lowest achievers are retained in Chapter 1 programs across grades, long-range effects are not likely to appear because achievement is generally small with this population of students, regardless of the kind of instruction they receive. It also may be that only the lowest achievers are retained in Chapter 1 programs for a prolonged period and gain in achievement is least likely with this population of students.

The question of why the lowest achieving students benefit less from Chapter 1 services than their somewhat higher-achieving classmates can also be examined using the conceptual framework presented here. It suggests that very low-achieving students may be more vulnerable to the negative effects of low teacher expectancies and labeling than their higher-achieving peers because their academic self-concepts are generally weaker. The impact of negative interactional processes on the motivation of these students may account for their typically small academic gains.

Research on the effects of ability grouping has been useful in identifying the mechanisms that relate Chapter 1 to student achievement. Since Chapter 1 programs are a form of ability grouping, the same processes that govern the relationship between ability grouping and achievement also influence the effectiveness of Chapter 1 programs. Some of these processes are conducive to learning while others are detrimental to it. In order to adequately evaluate Chapter 1, the nature of these instructional and interactional processes must be clearly understood and the conditions that generate them must be identified.

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